

AMENDMENTS TO THE CLAIMS

Claim 1 (Withdrawn): A recording layer of a magneto-optical storage medium, comprising:

a recording layer on which information is recorded and stored; and
a sublayer formed above or below the recording layer, the sublayer being made up of an alloy containing a transition metal,

wherein a magnetic anisotropy energy of the sublayer is exchange-coupled to the recording layer, thereby enhancing a coercive force of the recording layer.

Claim 2 (Withdrawn): The recording layer as claimed in claim 1, wherein the sublayer is formed in a multi-layered structure having a plurality of layers.

Claim 3 (Withdrawn): The recording layer as claimed in claim 1, wherein the sublayer is made up of an alloy containing a transition metal used for the recording layer.

Claim 4 (Withdrawn): The recording layer as claimed in claim 1, wherein the recording layer is made up of TbCoFe.

Claim 5 (Withdrawn): The recording layer as claimed in claim 4, wherein the sublayer is made up of an alloy containing one of Fe, Co, and Ni.

Claim 6 (Withdrawn): The recording layer as claimed in claim 5, wherein the sublayer is formed in an fct (face centered tetragonal) structure that has a big magnetic anisotropy.

Claim 7 (Previously Presented): A method for fabricating a magneto-optical storage medium having a sublayer, comprising steps of:

forming the sublayer of an alloy containing a transition metal;
forming a recording layer on which information is recorded and stored; and
performing thermal treatment on the sublayer,

wherein a crystalline structure of the sublayer is changed into a crystalline structure that has a high magnetic anisotropy by the step of performing the thermal treatment, so that the high magnetic anisotropy energy of the sublayer is coupled to the recording layer.

Claim 8 (Previously Presented): The method as claimed in claim 7, wherein the sublayer is an alloy containing a transition metal used for the recording layer.

Claim 9 (Previously Presented): The method as claimed in claim 7, wherein the recording layer comprises TbFeCo, and wherein the sublayer is an alloy containing one of Fe, Co, and Ni.

Claim 10 (Currently Amended): A method for fabricating a magneto-optical storage medium having a sublayer, comprising steps of:

forming the sublayer of an alloy containing a transition metal;

forming a recording layer on which information is recorded and stored; and

performing thermal treatment on the sublayer,

wherein a crystalline structure of the sublayer is changed into a crystalline structure that has a high magnetic anisotropy by the step of performing the thermal treatment, so that the high magnetic anisotropy energy of the sublayer is coupled to the recording layer;

wherein the recording layer comprises TbFeCo and wherein the sublayer comprises an alloy layer containing one of Fe, Co, and Ni; and another alloy layer comprising FePt; and

~~The method as claimed in claim 9, wherein the recording layer comprises TbFeCo the sublayer comprises FePt, and~~

wherein a temperature in the step of performing thermal treatment is in a range of 300 to 500°C.

Claim 11 (Previously Presented): A method for fabricating a recording layer of a magneto-optical storage medium having a sublayer, comprising steps of:

forming a sublayer of an alloy containing a transition metal;

performing thermal treatment on the sublayer; and

forming the recording layer on which information is recorded and stored, wherein a crystalline structure of the sublayer is changed into a crystalline structure that has a high magnetic anisotropy by the step of performing thermal treatment, so that the high magnetic anisotropy energy of the sublayer is coupled to the recording layer.

Claim 12 (Original): The method as claimed in claim 11, wherein the sublayer is made up of an alloy containing a transition metal used for the recording layer.

Claim 13 (Currently Amended): The method as claimed in claim 11, wherein the recording layer comprises of TbFeCo, and wherein the sublayer is an alloy containing one of Fe, Co, and Ni.

Claim 14 (Currently Amended): A method for fabricating a recording layer of a magneto-optical storage medium having a sublayer, comprising steps of:
forming a sublayer of an alloy containing a transition metal;
performing thermal treatment on the sublayer; and
forming the recording layer on which information is recorded and stored,
wherein a crystalline structure of the sublayer is changed into a crystalline structure that
has a high magnetic anisotropy by the step of performing thermal treatment, so that the high
magnetic anisotropy energy of the sublayer is coupled to the recording layer;
wherein the recording layer comprises TbFeCo and wherein the sublayer comprises an
alloy layer containing one of Fe, Co, and Ni; and another alloy layer comprising FePt; and
The method as claimed in claim 13,
wherein the recording layer comprises TbFeCo, and
wherein the sublayer comprises FePt, and
wherein the temperature in the step of performing thermal treatment is in a range of 300
to 500°C.